

#### Datasheet for ABIN6730854

## **IL-6 IQ-ELISA Kit**



#### Overview

Quantity:	96 tests
Target:	IL-6 (IL6)
Reactivity:	Human
Method Type:	DNA-Binding ELISA
Detection Range:	0.064 pg/mL - 1000 pg/mL
Minimum Detection Limit:	0.064 pg/mL
Application:	ELISA
Product Details	
Purpose:	Human Immunoquantitative (PCR-Based) IL-6 ELISA Kit for cell culture supernatants, plasma, and serum samples.
Sample Type:	Cell Culture Supernatant, Plasma, Serum
Analytical Method:	Quantitative
Detection Method:	qPCR
Sensitivity:	0.32 pg/mL
Characteristics:	The Immuno Quantitative Enzyme Linked ImumunoSorbent Assay (IQELISA™) is an innovative new assay that combines the specificity and ease of use of an ELISA with the sensitivity of real-time PCR. This results in an assay that is simultaneously familiar and cutting edge and enables the use of lower sample volumes while also providing more sensitivity. The Human IL-6 IQELISA™ Kit is a modified ELISA assay with high sensitivity qPCR readout for the quantitative measurement of Human IL-6 in serum, plasma, and cell culture supernatants. This assay

employs an antibody specific for Human IL-6 coated on a 96-well PCR plate. Standards and samples are pipetted into the wells and IL-6 present in a sample is bound to the wells by the immobilized antibody. The wells are washed and a detection affinity molecule is added to the plates. After washing away unbound detection affinity molecule, primers and a PCR master mix are added to the wells and data is collected using qPCR. Ct values obtained from the qPCR are then used to calculate the amount of antigen contained in each sample, where lower Ct values indicate a higher concentration of antigen.

#### Components:

- IL-6 Microplate (Item A): 96 well PCR plate coated with anti-Human IL-6
- Wash Buffer I Concentrate (20x) (Item B): 25 ml of 20x concentrated solution
- · Standards (Item C): 2 vials of recombinant Human IL-6
- Assay Diluent A (Item D): 30 ml diluent buffer, 0.09% sodium azide as preservative. For Standard/Sample (serum/plasma) diluent
- Assay Diluent B (Item E): 15 ml of 5x concentrated buffer. For Standard/Sample (cell culture medium/urine) diluent
- Detection Affinity Reagent for IL-6 (Item F): 2 vials of a 4x concentrated solution of anti-Human IL-6 affinity reagent
- IQELISA Detection Reagent (Item G): 1.4ml of a 10x concentrated stock
- Primer Solution (Item I): 1.7 ml vial
- PCR Master Mix (Item J): 1.2 ml vial
- PCR Preparation buffer (Item K): 1ml vial of 10x concentrated buffer
- · Final Wash Buffer (Item L): 10ml vial of 10x concentrated buffer

#### Material not included:

- · Real-time PCR instrument, Bio-Rad recommended
- Precision pipettes to deliver 2 µL to 1 mL volumes
- · Adjustable 1-25 mL pipettes for reagent preparation
- · 100 mL and 1 liter graduated cylinders
- Absorbent paper
- · Distilled or deionized water
- · Log-log graph paper or computer and software for data analysis
- · Tubes to prepare standard or sample dilutions
- Heating block or water bath capable of 80°C

### **Target Details**

Target:	IL-6 (IL6)
Alternative Name:	IL-6 (IL6 Products)
Gene ID:	3569
UniProt:	P05231

Pathways: TLR Signaling, Hormone Transport, Negative Regulation of Hormone Secretion, Myometrial

Relaxation and Contraction, Positive Regulation of Immune Effector Process, Production of Molecular Mediator of Immune Response, Regulation of Carbohydrate Metabolic Process, Autophagy, Cell RedoxHomeostasis, Cancer Immune Checkpoints, Inflammasome

## **Application Details**

Application Notes:	The Immuno-Quantitative ELISA (IQELISA) kits are an innovative assay platform that combine
	the specificity and ease of use of an ELISA with the sensitivity of real-time PCR. This results in
	an assay that is simultaneously familiar and cutting edge and enables the use of only 1/10th
	the sample volume while also providing 10x more sensitivity than a traditional ELISA.
Comment:	Features:
	- Excellent for follow up/confirmation of antibody array data
	- Pre-coated 96 well plate
	- Strip plate format minimizes waste
	- Complete kit includes all necessary reagents
	- 10x more sensitive than ELISA
	- Reproducible and reliable
	- Optimized for serum, plasma, urine and cell culture medium
	- 1/10th the sample volume of an ELISA
	Research Applications:
	- Detection of quantitative protein levels in biological fluids
	- Validation of antibody array results
	- Validation of biomarker discovery studies
Plate:	Pre-coated
Protocol:	1. Prepare all reagents, samples and standards as instructed
	2. Add 25 $\mu L$ standard or sample to each well. Incubate for 2.5 hours at room temperature or overnight at 4 $^{\circ} C$
	3. Add 25 $\mu L$ detection affinity reagent to each well. Incubate 1 hour at room temperature
	4. Add 25μL of IQELISA Detection Reagent to each well. Incubate 1 hour
	<ul><li>5. Add 15μL Primer solution 10μL of PCR master mix to each well</li><li>6. Run real-time PCR</li></ul>
Reagent Preparation:	Recommended Dilution for serum and plasma samples: 2 - 10 fold
Restrictions:	For Research Use only

# Handling

Expiry Date:	6 months
	reconstitution. Opened PCR plate or reagents may be stored for up to 1 month at 2°C to 8°C.
	(recombinant protein) should be stored at -20°C or -80°C (recommended at -80°C) after
Storage Comment:	May be stored for up to 6 months at 2° to 8°C from the date of shipment. Standard